

Interview Summary	Application No.	Applicant(s)	
	10/759,246	SERGOYAN ET AL.	
	Examiner	Art Unit	
	Marina Kramskaya	2858	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Marina Kramskaya. (3) Conrad Dewitte.
 (2) Diane Lee. (4) Leo Jennings.

Date of Interview: 11/21/05.

Type: a) ☐ Telephonic b) ☐ Video Conference
 c) ☒ Personal [copy given to: 1) ☐ applicant 2) ☒ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
 If Yes, brief description: _____.

Claim(s) discussed: 1, 11, & 22.

Identification of prior art discussed: Fathi et al., US 5,648,038, Anderson et al., US 6,184,694.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The invention as a whole was discussed. Proposed amendments to the claims were presented, distinguishing the cavity resonator and sample under test from the cavity resonator and sample under test of Fathi et al. Upon receiving of a formal response, further consideration will be made.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

DIANE I. LEE
 PRIMARY EXAMINER



Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

M. Kramskaya
 Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

1. (Currently Amended) A thickness measurement system for measuring a surface thickness of a sample, comprising:

an electromagnetic cavity resonator having an exposed side adapted to contact a portion of the exterior of the sample;

a signal decoupler coupled to the cavity resonator;

a ~~an~~ signal amplitude detector coupled to the decoupler;

a frequency signal generator coupled to the processing unit and to the decoupler;

a processing unit coupled to the amplitude detector that processes; and

a correlating algorithm correlating a resonant frequency shift detected by the amplitude detector to ~~the~~ the surface thickness of the portion of the exterior of the ~~the~~ sample being measured;

wherein during the measurement of the portion of the exterior of the sample, the exposed side of the electromagnetic cavity resonator is held against the exterior of the sample being measured.

2. (Original) The thickness measurement system of claim 1, wherein the electromagnetic cavity resonator has a plurality of cavities.

3. (Previously Amended) The thickness measurement system of claim 1, wherein the frequency signal generator is one of a Gunnplexer or a Gunn Diode.

4. (Original) The thickness measurement system of claim 1, further comprising a suction assembly that applies pressure to the cavity resonator to retain it upon the measurement sample.

5. (Original) The thickness measurement system of claim 1, wherein the amplitude detector detects a voltage.

6. (Original) The thickness measurement system of claim 1, wherein the amplitude detector detects a power.

7. (Original) The thickness measurement system of claim 1, further comprising:
a DC supply coupled to the frequency generator.

8. (Original) The thickness measurement system of claim 1, further comprising:
a varactor DC supply capable of controlling a frequency generator output frequency.

9. (Original) The thickness measurement system of claim 1, wherein the processing unit is a personal computer.

10. (Original) The thickness measurement system of claim 1, wherein the cavity resonator is resonant at a natural frequency of approximately 10.6 GHz.

11. (Currently Amended) A thickness measurement system for measurement of a surface thickness of a sample, comprising:

a resonating means for resonating an electromagnetic signal, having an exposed side adapted to contact a portion of the exterior of the sample;

a decoupler means for decoupling signals from the resonating means, and connected to the resonating means;

a signal detecting means for detecting an amplitude of signals from the decoupler means, and connected to the decoupler means;

a frequency signal generating means for generating frequency signals, coupled to the processing means and the decoupler means; and

a processing means for processing, coupled to the signal detecting means, or having;

correlating means for correlating a resonant frequency shift detected by the detecting means to [[a]] the surface thickness of the portion of the exterior of the [[a]] sample being measured;

a holding means for holding the exposed side of the resonating means against the exterior of the sample being measured.

12. (Previously Amended) The thickness measurement system of claim 11, wherein the frequency signal generating means utilizes a Gunnplexer to generate frequencies.

13. (Original) The thickness measurement system of claim 11, wherein the resonating means has a plurality of cavities.

14. (Original) The thickness measurement system of claim 11, wherein the frequency signal generating means has Schottky diodes.

15. (Original) The thickness measurement system of claim 12, wherein the Gunnplexer is a Gunn Diode.

16. (Original) The thickness measurement system of claim 11, further comprising a suction means for applying a pressure to the resonator means to retain it upon the measurement sample.

17. (Original) The thickness measurement system of claim 11, wherein the detecting means detects a voltage.

18. (Original) The thickness measurement system of claim 11, wherein the detecting means detects a power.

19. (Original) The thickness measurement system of 11, further comprising:
a DC supply means coupled to the frequency signal generating means.

20. (Original) The thickness measurement system of claim 11, wherein the processing means is a personal computer.

21. (Original) The thickness measurement system of claim 11, wherein the resonating means is resonant at a natural frequency of approximately 10.6 GHZ.

22. (Currently Amended) A method for thickness measurement for measuring a surface thickness of a sample, comprising the steps of:

abutting an open faced electromagnetic cavity resonator to a portion of the exterior of a
sample having a film thickness;

holding the open faced electromagnetic cavity resonator against the exterior of the sample
being measured;

sweeping frequencies in the cavity resonator using a signal generator having a
Gunnplexer;

detecting a resonant frequency of the cavity resonator using a reflected energy detector;
and

determining the thickness of the film from a correlation of a shift of the resonant
frequency.

23. (Original) The method of claim 22, wherein the correlation is based on a first order equation.